PE anti-human CD220 Antibody

Catalog# / Size	352603 / 25 tests 352604 / 100 tests
Clone	B6.220
Regulatory Status	RUO
Other Names	Insulin Receptor
Isotype	Mouse IgG2b, κ
Description	CD220, also known as insulin receptor, is a type I transmembrane receptor tyrosine kinase composed of two extracellular α-subunits and two transmembrane β-subunits. Binding insulin, the insulin receptor forms a heterotetramer of two units to induce autophosphorylation and activation of the tyrosine kinase activity of the receptor. Activation of insulin receptor leads to subsequent downstream signaling in metabolic regulation, inducing glucose uptake, cell growth, differentiation, and apoptosis. Gene mutation in the insulin receptor or decreased insulin receptor signaling leads to insulin-resistant diabetes mellitus and noninsulin-dependent diabetes mellitus (diabetes mellitus type 2). Most normal cells constitutively express insulin receptors. In hematopoietic cells, insulin receptor is constitutively expressed on monocytes and selectively expressed on activated lymphocytes.

Product Details

Reactivity	Human, African Green, Baboon, Cynomolgus, Rhesus
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Human insulin receptor/freund's adjuvant
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).
Preparation	The antibody was purified by affinity chromatography and conjugated with PE under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.)
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. **Do not freeze.**
Application	FC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is 5 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
Application References **(PubMed link indicates BioLegend citation)**	1. Kim HK, *et al.* 2012. *PloS One.* 7:e45454. PubMed.
Product Citations	1. Kim H, *et al.* 2012. PLoS One. e:47454. PubMed 2. Uchimura T *et al.* 2018. Immunity. 49(6):1049-1061 . PubMed
RRID	AB_10898328 (BioLegend Cat. No. 352603) AB_10933245 (BioLegend Cat. No. 352604)

Antigen Details

Structure	Consist of two alpha subunits and two beta subunits; the beta subunit passes through the cellular membrane and is linked by disulfide bonds.
Distribution	Hematopoietic and non hematopoietic cells.
Function	Regulates cell metabolism and growth.
Interaction	Ectonucleotide pyrophosphatase/phosphodiesterase, PTPN11, GRB10, GRB7, PRKCD, IRS1, SH2B1 and Mothers against decapentaplegic homolog 2.
Ligand/Receptor	Insulin
Biology Area	Cell Biology, Immunology, Protein Synthesis, Signal Transduction
Molecular Family	CD Molecules, Protein Kinases/Phosphatase
Antigen References	1. Viardot A, *et al.* 2006. *Endocrinology* 148:346. 2. Ward CW, *et al.* 2009. *Bioessays* 31:422. 3. Brindle NP, *et al.* 1990. *Biochem. J.* 268:615.
Gene ID	3643

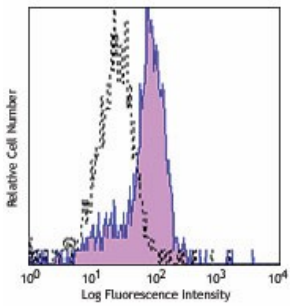
Related Protocols

Cell Surface Flow Cytometry Staining Protocol

Other Formats

Purified anti-human CD220, PE anti-human CD220

Product Data



Human peripheral blood monocytes were stained with CD220 (clone B6.220) PE (filled histogram) or mouse IgG2b, κ PE isotype control (open histogram).

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